## UNITED NATIONS WORLD HEALTH ORGANIZATION

#### INTERIM COMMISSION

#### EXPERT COMMITTEE ON VENEREAL DISEASES

At its fourth session the Interim Commission of the World Health Organization decided upon the establishment of an Expert Committee on Venereal Diseases, the terms of reference being that a survey with regard to scientific, practical and other aspects of the venereal disease problem be pursued with a view to developing practical plans for international combating of venereal diseases and to prepare a report for consideration by the Interim Commission at its fifth session for eventual recommendation to the First World Assembly.

#### FIRST SESSION

The Committee, which held its first session in Geneva from Jan. 12 to 16, 1948, consisted of: Prof. Waldemar E. Coutts, Chief, Departmento de Higiene Social Dirrecion General de Sanidad, Santiago, Chile; Prof. Marian Grzybowski, Clinic of Dermatology, University of Warsaw, Poland; Dr. John F. Mahoney, Chief, Venereal Disease Research Laboratory of the U.S. Public Health Service, Staten Island, New York; Dr. G. L. M. McElligott, Adviser on Venereal Diseases, Ministry of Health, London; and Dr. T. Guthe, Secretary.

Also present were Drs. J. Suchanek, and D. Borenzstein of the Venereal Diseases Division of the Polish Ministry of Health; Dr. Hantchef of the League of International Red Cross Societies; Dr. Borcic, liaison officer, I.C.E.F.; and Dr. W. Burckhardt, liaison officer for the International Union against the Venereal Diseases.

The report of this first session was submitted to the Interim Commission and is here reproduced in slightly abbreviated form.

### Introduction ·

It is recognized that venereal disease represents a world health problem of great magnitude, and the Committee is fully in accord with the views of the Interim Commission that malaria, tuberculosis, and venereal diseases deserve the highest priorities among the important activities of the World Health Organization, and that in several respects the venereal disease problem has an international character, which was particularly evident during and after the recent war.

The relative importance of many aspects of venereal disease control has undergone major changes in the last few years. In the therapy of syphilis, penicillin has removed most of the dangers and many of the drawbacks formerly associated with arsenic, heavy metal, and other therapy, and has introduced a hopeful outlook for prevention of congenital syphilis in the newborn by treatment of pregnant syphilitic mothers. Gonorrhœa has lost much of its capacity to injure the human, and the minor venereal diseases have shown a satisfactory response to chemotherapy. In the field of diagnosis, better culture techniques have added to the recognition of the gonococcus. The development of cardiolipin lecithin antigens holds promise of removing some of the uncertainties in serum diagnoses of syphilis.

In planning for future international activities in the field of venereal diseases it would appear desirable to attempt an early evaluation of the impact which will be exerted on the general situation by these advances. These have probably not been operative for a sufficiently long period of time or over a wide enough geographic area to exert a demonstrable influence on the world-wide venereal disease picture. National and international venereal disease control activities recommended at the present may become obsolete or may require realignment within the next few years when a more precise appraisal of the influences likely to arise becomes possible.

While a hopeful vista is apparent today, there is not any assurance that the favourable situation will persist. As long as the therapeutic agents upon which reliance is now being placed continue to be effective, satisfactory progress in control of the communicable stages of the venereal diseases may be anticipated. It is not beyond the range of possibility, however, that the present antibiotics may encounter a progressively increasing resistance on the part of the causative organisms of gonorrhea and syphilis. In that event, the control forces would be in a discouraging position, unless and until a replacement for the current agents would be developed. Although no evidence of resistance has been observed up to the present, it would

appear provident to press national and international control programmes as vigorously as possible while entirely adequate implements for the managements of the diseases are available. Action now through public health, scientific, and other measures, in each country and internationally, would gain advantages which would help to shrink the reservoirs of venereal infection.

The Committee recognizes that in all countries venereal diseases represent a health problem with vast social implications. In view of the terms of reference of the Committee—to propose plans for international combating of venereal infections—the Committee takes notice that many of the social aspects of the problem are at present under consideration by United Nations and other international organizations. Until such definite programmes have been outlined, the World Health Organization may find it advisable to concentrate on the public health and medical aspects of the problem as the essential basis for international combating of these infections.

Realizing the responsibility placed on the Committee by the Interim Commission under its terms of reference, and considering the statutory obligations of the World Health Organization under its Constitution, as well as the views of governments obtained through the preparatory work of the World Health Organization Interim Commission Secretariat, the Committee is of the opinion that the activities outlined in the report are essential for the programme of the World Health Organization in international combating of venereal disease. These activities will require a permanent Committee on Venereal Infections, to advise the World Health Organization, and a venereal disease section as part of the administrative framework of the Secretariat.

#### Delineation of the Problem

An accurate determination of the magnitude of the problem through the conduct of serological surveys, and through the medium of other devices for collecting incidence information would constitute the desirable approach to the formulation of national and international programmes for combating of venereal infections. Countries should be encouraged to record at least basic data. It should be one of the activities of the World Health Organization Secretariat to collect data in an effort to map systematically the nature and extent of the global problem of venereal diseases. In view of the protracted delay entailed by this approach, however, and the weight of the opinion that a basic structure should now be designed capable of functioning under any particular set of circumstances, it is considered justified to proceed with the organization of international activities in the venereal disease field.

The major emphasis of the venereal disease problem should be placed on the control of syphilis, with gonorrhea, chancroid, lymphogranuloma venereum, and granuloma inguinale considered in that order of relative importance. In view of reports from many countries on the increasing importance of genito-infections of unclassified or ill-defined origin, the possibility of new entities of venereal infections being recognized in the future should be stressed. Collection of data on these conditions is desirable.

Although the late manifestations of syphilis are important from the standpoint of medical care and should be considered in any extensive international venereal disease programme, the early infection is the stage of the disease which primarily warrants public health attention. This statement risks being invalidated by the production of evidence indicating an active role of the late or latent infections in the transmission of the disease.

In support of the allocation of priorities, the Committee desires to record the following:

- 1. Antibiotic therapy appears to have transformed gonorrhea from a disease of great chronicity with frequent recurrences, with great tendency to trouble-some complications and protracted disability, to an infection readily amenable to treatment and with almost complete freedom from complications or tendency to relapse.
- 2. Chancroid responds promptly to sulphonamide therapy in the majority of instances without extensive tissue damage and prolonged disability. Its principal importance apparently lies in the frequency with which chancroidal lesions may harbour evidence of a concomitantly acquired syphilis.
- 3. Lymphogranuloma venereum in the acute phase yields readily to sulphonamide therapy. The incidence of the disease is not great except in certain geographic areas and certain social strata. The degree of disability usually encountered is not great except in chronic stages, as represented by a rectal stricture esthiomene and elephantiasis of the penis and scrotum.
- 4. Granuloma inguinale is a disease of minor prevalence, except in certain geographic areas and certain races. Satisfactory response is reported to streptomycin therapy.

In view of the above, it is recommended that international activities should place major emphasis upon the detection and treatment of early syphilis, with a proviso that special consideration be given to the remaining members of the venereal group of diseases where special geographical or racial considerations pertain, and in the spread of venereal diseases from country to country.

#### Fields of Activity

Training Facilities, Fellowships, Lectureships.— The Committee takes notice of the statutory obligations of the World Health Organization to promote improved standards of teaching and training in the health, medical, and related professions.

In many countries today there is an inadequate number of trained personnel available in the venereal disease field. The diagnosis, prevention, treatment, and control of these infections have undergone major changes in the past decade. It appears timely to consider the venereal diseases, including their laboratory aspects, as a separate entity within the field of medicine and of public health. An appreciation of the changes in the last decade is essential for the development of effective venereal disease control programmes. To this end it appears of primary importance to establish training facilities in the several departments of control work at the earliest possible moment.

The fields in which medical officers are needed and which would be important nationally and internationally, are: administration, epidemiology, clinical, and laboratory aspects.

The selection of physicians, nurses, and laboratory workers for training should be done with the object of making available personnel capable of subsequently conducting demonstrations and/or establishing training facilities in countries or in geographic areas where the need for intensive activity is pressing.

In this connexion the U.S. Public Health Service has expressed willingness to make the training facilities of the U.S. Marine Hospital and the Venereal Disease Research Laboratory, Staten Island, New York, available for such key medical personnel as may be required to launch programmes to be subsequently outlined.

It is recommended that twelve venereal disease fellowships be provided in the first year and that training facilities in various countries be studied and designated by the World Health Organization with a view to expanding this part of the training programme.

It is further recommended that six lectureships be provided for outstanding specialists in the venereal disease field to visit countries at their request.

Serological Standardization and Laboratory Aspects.—An effective control programme is dependent, to a major degree, upon the efficient conduct of serological tests for syphilis. At the present time a wide variety of methods employing as an indicator either the complement fixation or the precipitation phenomenon are in use in different parts of the world. All of these methods have

limitations. No single test or combination of tests completely covers the field of clinical syphilis. All are capable of being influenced by reacting substances produced by infections and disease conditions other than syphilis. A close scrutiny of the entire situation will be required if sound information is to be the basis for international activities in the field of serology.

There is a great lack of uniformity in procedure and technique which has in the past had the effect of producing confusion and of rendering valueless many studies of the serology of syphilis. It may cause an individual to be considered as having syphilis in one country and as being free from suspicion in another; as being syphilitic on one day and normal on the next.

Quantitative determinations of the reacting substance are essential to the most advantageous use of penicillin in the treatment of syphilis, especially in early infections. The serology curve as portrayed by successive quantitative determinations, conveys to the clinician the degree of satisfactory progress, the presence of serologic relapse or of serologic failure in the individual patient. The pattern is also helpful in differentiating relapse and reinfection. The quantitative procedures throw an additional burden of technical work upon the serology laboratory and introduce even greater opportunities for discrepant and inconsistent findings.

Very recently the advantages of the more stable and more uniform mixtures of cardiolipin and lecithin replacing the lipoidal antigens which have been employed in the tests for syphilis, are becoming apparent. This circumstance may prove to be of great value to serology in syphilis, as it offers an opportunity of eliminating some of the variable factors encountered in the older type of antigens. Several years of additional experience, however, will be needed before the real value of this advance can be estimated.

If the maximum of usefulness is to be obtained from serology in syphilis, the following technical aspects will require detailed consideration:

- 1. The selection and adoption of one technical method to be employed in the laboratory of the official health organization of the countries participating in the W.H.O. programme. This selection would not militate against the conduct of any other test or tests but would stipulate that this procedure be employed in the exchange of information between nations.
- 2. A concerted effort to bring the test methods employed in various parts of the world into a reasonable degree of uniformity as to the level of sensitivity.
- 3. The selection of a uniform method for the reporting of the results of quantitative determinations.
- 4. The standardization of technical methods in so far as is possible.

The Committee recognizes the international importance of the efforts of the Health Organization of the League of Nations in the field of serological standardization. This work should again go forward.

The Committee takes notice of the statutory, obligations of the W.H.O. to standardize diagnostic procedures where necessary and to call such technical and other special international conferences as are within its competence. As a means of initiating steps to bring the laboratory phases abreast of clinical work in syphilis, it is recommended that an international Conference of key serologists from representative areas be convened, on the model of the Technical Laboratory Conferences of the League of Nations and the Serological Standardization Conferences of the USPHS.

For the conduct of preliminary studies, and for guidance on the preparation of the technical work essential to such an international gathering, the USPHS has expressed its willingness to make available the facilities of its Venereal Disease Research Laboratory, New York. To undertake other necessary preparatory work in this highly specialized field, it is further recommended that a sub-committee on serology to the suggested Committee on Venereal Infections be established. This sub-committee should commence to function before the end of 1948, the International Serological Conference itself being called not earlier than 1950.

In an international effort towards uniformity of serological tests for syphilis, the W.H.O. must have at its disposal at least one first-class reference laboratory, competent to guide international serological work and to teach and keep abreast of new developments. As a temporary measure it is recommended that the potential services of existing laboratories should be explored in this respect.

Laboratory aspects of the other venereal diseases, gonorrhea, chancroid, lymphogranuloma venereum, and granuloma inguinale, as well as genital infections of ill-defined and unclassified origin, may from time to time require consideration from the point of view of establishing internationally uniform procedures.

Availability of Anti-venereal Drugs.—Many countries have been lacking anti-venereal drugs since the war. Sulphonamides are the most widely available, but a shortage of arsenicals and bismuth is marked in several areas. Production of penicillin is limited to a few countries, and requirements for treatment of venereal and other diseases cannot be met in many countries owing to limited production and other technical reasons. Whilst penicillin preparations in the past have been issued in the amorphous form, demands for purified crystalline preparations

are steadily increasing. While it is desirable that crystalline penicillin should be used for reasons of accurate dosage, tolerance, etc., the purification process results in as much as 30 to 50 per cent. decrease in the actual yield during manufacture. Crystalline penicillin should therefore be restricted to syphilis, and the amorphous form to gonorrhœa. It is considered that penicillin is often being wastefully used and that the medical profession should be warned that cumulative undue expenditure of the drug would further endanger its availability. All possible measures should be taken by the World Health Organization to encourage production and to ensure an equitable distribution of the antibiotic to all countries, particularly those where it is not now available. It is recommended that, as a basis for further evaluation of this problem, the World Health Organization or its Interim Commission should study current production capacities, as well as penicillin requirements in the various countries.

Evaluation of Treatment.—The advent of new anti-syphilitic drugs and methods of treatment during the last few years has introduced conditions essentially different from those prevailing at the time of the standardization work in the field of anti-syphilitic therapy by the Health Organization of the League of Nations.

Developments in recent years have shown that regardless of penicillin-arsenic-bismuth being used alone or in any combination, emphasis is put on the epidemiological aspect by the use of short-term treatment methods to break the chain of infection as quickly as possible. A precise optimal form of treatment cannot, however, be laid down, since these methods have not been applied long enough to permit a final evaluation of the results.

It is assumed that on the basis of available data it may be stated, however, that a minimum treatment schedule for early syphilis with penicillin should consist of not less than 4,000,000 units, given over a period of eight days, at the rate of 60,000 units every two hours, for a total of ninety injections, or twenty-four-hourly injections of 500,000 units of penicillin in oil beeswax (POB). In gonorrhea the therapy with penicillin should not be changed because of the danger of aborting or masking an early syphilis in the advent of the two diseases being contracted simultaneously; serological follow-up for six months after penicillin treatment of gonorrhea would, however, seem advisable.

It is recommended that one of the tasks of the proposed W.H.O. Committee on Venereal Infections should be, through suitable procedures, to make available future evaluations of treatment methods and to induce nations to adopt a reasonably accurate

form of therapy. Evaluation of treatment schedules might be facilitated by the calling of an international meeting of experts on venereal diseases when sufficient time has elapsed to permit such evaluation.

Health Education.—The Committee observes that the statutory obligations of the W.H.O. provide to assist in developing an informed public opinion among all peoples on matters of health.

Opinions on the type of health education important to venereal disease control programmes appear to vary widely from country to country. If the W.H.O. should establish a section on health education, venereal diseases should be included, to encourage national and international voluntary organizations to assume responsibility for informing the public and gaining its support. If such a section is not formed, the Committee would be in favour of considering recommendation at a later date of a sub-committee to the suggested W.H.O. Committee on Venereal Infections. This sub-committee should be composed of trained men, skilled in the art of public enlightenment to study the questions involved and evaluate measures and procedures currently used in various countries.

Research.—The Committee observes that it is within the province of the W.H.O. to promote and conduct research in the field of health.

There are a number of important investigative problems the solution of which would be beneficial to national and international control work. Special problems might require studies by experts in highly specialized fields, and financial support of such research by the W.H.O. would appear desirable.

It is recommended that the activities of the W.H.O. in regard to research be confined to financial support to organizations, institutions or individuals, who are considered competent of carrying to a definite conclusion the study of significant problems bearing upon any of the venereal infections.

Wherever mutual problems arise in other technical committees of the W.H.O., liaison should be maintained with them. For example, in serologic and penicillin standardization work, close liaison should be maintained with the Expert Committee on Biological Standardization.

Venereal Disease Information.—Most existing periodicals are of national character, and there is need for a critical international abstract periodical which would provide information to health administrations, public health officers, and the medical profession, and would contribute to liberalize international interchange of medical and public health information.

It is recommended that the possibility of establishing a specialized abstract periodical under the ægis of the W.H.O. and other international organizations, or of co-ordinating existing activities in the field, be explored by the Secretariat and further considered by the proposed W.H.O. Committee on Venereal Infections when it meets.

In many countries, particularly those ravaged by war, great need exists for venereal disease information in general, particularly with regard to recent developments in epidemiology and therapy. Assistance by W.H.O. in providing textbooks, monographs, medical periodicals, etc., would expedite venereal disease control programmes in such countries.

Prophylaxis.—It is the opinion of the Committee that present available personal and per-oral prophylactic methods are not suitable for general use in civilian populations. There is no reliable evidence that per-oral prophylaxis based on penicillin is successful. Should future developments in this field prove of definite value in the control of venereal diseases, the Committee would favour indicating a prophylactic procedure.

Unification of Nomenclature for Causes of Morbidity and Deaths.—The Committee takes notice of the statutory obligations of the W.H.O. to establish and revise necessary international nomenclatures of diseases. In considering the proposed unification list of causes of morbidity and deaths, the Committee approves the approach embodied in the unification principle. In regard to the proposed groupings for venereal diseases, it is recommended that liaison be -maintained between the proposed Committee on Venereal Infections and the Committee of International Statistical Classification of Diseases and Causes of Death for reciprocal consultations whenever action on revision is taken. Suggestions will be passed by the Expert Committee to the Classification Committee.

Relations with other International Organizations.—

It is recognized that several other international organizations are carrying out activities contributing to venereal disease control. United Nations and several other international organizations are considering programmes relating to the social hygiene, educational, and other aspects of the problem. Full advantage should be taken of the services of these organizations, and relations should be established to co-ordinate future overall planning and action. Elsewhere in this report specific reference has been made concerning mutual problems appearing to require reciprocal consultations and action by such other international organizations,

Relations should also be maintained with nongovernmental international organizations. The social implications of venereal diseases represent a field where these organizations can contribute to control programmes.

The Committee observes that the Interim Commission at its fourth session requested that the reports of the International Union against the Venereal Diseases be made part of the Committee's reference material. In considering these reports the Committee approves the purposes and activities of this organization, and the proposed establishment by the Union of a liaison committee with the W.H.O., as set forth in the resolutions passed at the first post-war assembly of the Union.

It is recommended that liaison be maintained by the W.H.O. with other international governmental and non-governmental organizations carrying out activities contributing to venereal disease control, in order that future overall planning and action be co-ordinated.

Assistance to Governments.—The Committee takes notice that under the W.H.O. Constitution assistance may be extended to governments upon request.

The Committee is of the opinion that the W.H.O. should be prepared to give expert advice to countries requesting information on the aspects of prevention, diagnosis, treatment, and control, drawing on the experience of other countries.

It should also be prepared to inform governments and health departments on legal aspects of venereal disease control and to review periodically recent developments in this field. The Committee takes notice that the International Union against the Venereal Diseases is presently undertaking a systematic compilation of current venereal disease laws and regulations in all countries and areas of the world. It would appear desirable that this project be supported by the W.H.O.

The W.H.O. should be prepared to meet requests of countries for field services, with a view to demonstrating practical activities in one or more of the special fields of clinical, laboratory, or administrative phases of control work. Such consultation and demonstration units should be made available, particularly to areas where knowledge of modern public health methods is limited.

The educational value of these teams would be considerable, and such equipment should be provided as would permit the authorities of the country itself, or organizations designated by them, to carry on the work after an initial demonstration period. Such teams should preferably be composed of personnel trained under the fellowship programme.

The suggested units should not be put into the field until teams are available capable of carrying out an impeccable job.

Details of the composition of the teams and the minimum equipment required in such field consultation and demonstration units should be further discussed at the next meeting of the experts.

It is recommended that W.H.O. should be prepared to give advice to governments on various aspects of venereal disease control and should outline plans for field consultation and demonstration units, composed of qualified teams which, at the request of governments, could demonstrate practical venereal disease control activities; these activities to be taken over by the countries themselves after an initial demonstration period.

# International Health Regulations for Venereal Diseases, and the Brussels Agreement

The Committee is in agreement with the principle expressed by the Economic and Social Council of the United Nations, June, 1946, on the advantages of replacing diplomatic conventions in technical fields by international regulations, and takes notice of the Constitution of the W.H.O., authorizing the World Health Assembly to adopt such regulations in health matters. The Committee is further in accord with the views of several governments that the Agreement respecting facilities to be accorded to merchant seamen for the treatment of venereal diseases (Brussels, December 1, 1924) be revised and expanded. In the opinion of the Committee, such revision and expansion should take place in the form of international health regulations for venereal diseases, and the Agreement should remain valid until the actual entry into force of the new regulations.

The Committee agrees with the views of several governments that expansion of the Brussels Agreement should include migrants other than seafarers (such as displaced persons, foreign workers, emigrants, etc.). It is, however, recognized that seafarers are particularly exposed to risks of venereal infection, and it is desirable that the principles of the Brussels Agreement be preserved in any new health regulations for venereal diseases. Further, due to its international epidemiological importance, the seafarer should receive particular attention as regards the question of sick-pay to those who might be deterred from undergoing anti-syphilitic treatment for fear of losing their ship.

The Committee takes notice that United Nations, the International Labour Organization, and other international organizations are presently considering the problems pertaining to migrants, including seafarers, owing to the particular characteristics of this

group. Revision and expansion of the Brussels Agreement into international health regulations for venereal diseases should, therefore, be made by co-ordinating the activities of the organizations concerned.

In such international health regulations the following basic principles should be embodied:

- 1. Medical examination, treatment and drugs, and hospitalization where necessary, all free.
- 2. The services provided should be of the highest professional quality and treatment applied should, wherever possible, follow such optimal treatment schedules as might be recommended from time to time by the W.H.O. Committee on Venereal Infections.
- 3. An individual treatment book should be provided free of charge to the patient where pertinent data regarding results of examinations, laboratory procedures, treatment, etc., should be entered.
- 4. It would be advantageous to have an international list of treatment centres including facilities available in inland towns as well as ports: this list should be revised at least every third year.
- 5. The epidemiological necessity for treatment of infectious stages of venereal disease is in the interests of the community concerned. A system of international contact tracing should therefore be established in such a way that each country agrees to communicate confidentially, under the professional seal of secrecy, directly to the public health authorities of other countries, the names and addresses of persons indicated as being a source of infection, so that the public health authorities of these countries will be able to take measures permitted under their legislations. To facilitate rapid epidemiological investigations, such communications should be sent by airmail.
- 6. In every large port it is desirable that a social welfare worker be available, the qualifications for which should include some knowledge of venereal disease treatment and its implications.

It is recommended that the Brussels Agreement be abrogated and replaced by a wider instrument in the form of international regulations for venereal diseases. This instrument should cover various categories of migrants, including seafarers, and be based on the principles outlined.

The Expert Committee would be prepared to make a preliminary draft of such regulations in consultation with the Committee entrusted with the revision of sanitary conventions (Committee on International Epidemiological Control) for the consideration of the W.H.O. and governments.

### Presentation of the Polish Anti-Syphilis Plan

The Committee takes notice of the anti-syphilis plan of the Polish Ministry of Health, as presented both by the representatives of the Ministry and in the documents made available to the Committee. After considering its technical and other aspects, the Committee wishes to express its approval of the plan as follows:

A mass attack on syphilis on a nation-wide scale with penicillin has, to the knowledge of the Committee, so far not been attempted anywhere in the world.

It is the opinion of the Committee that the plan, as presented by the Polish Ministry of Health, appears to be a well-rounded and well-planned method for the control of syphilis in that country. The principles which are embodied in the plan should serve as an effective means of combating a similar situation in other countries.

# W.H.O. Committee on Venereal Infections: A Section on Venereal Diseases in the W.H.O. Secretariat, and Finance

Committee on Venereal Infections and sub-Committee on Serology.—The international activities outlined, in the opinion of the Committee, can only be accomplished by the establishment of an advisory body of experts to the W.H.O., composed of ten or twelve specialists in public health, clinical venereology, and other aspects, with power to create special sub-Committees. A sub-Committee on Serology and Laboratory Aspects, composed of five members should be appointed as soon as possible.

Meetings will be required as programmes and activities develop. The time and place of meetings should be tentatively set at the end of each session.

In view of the proposed activities in the field of serological standardization, and the time necessary to prepare for the proposed international meeting of serologists, the Expert Committee is of opinion that a meeting of the sub-Committee on Serology should be held in September, 1948, in New York, and that the W.H.O. Committee on Venereal Infections should also meet at that time.

A Venereal Disease Section in the W.H.O. Secretariat, and Finance.—The proposed Section on Venereal Disease in the W.H.O. Secretariat should be adequately staffed by highly qualified personnel. The structure of the section should be flexible in such a way as to permit development of the international public health and medical activities in the field of venereology and to meet particular problems arising from new advances.

Adequate funds for the proposed W.H.O. Committees and the activities of the Secretariat should be provided, including funds for the particular proposals outlined. A translation of these activities into budgetary terms will be made at a later date.

#### SECOND SESSION

At its second session, held from Oct. 15 to 19, 1948, in Paris, the membership of the Expert Committee, in addition to the four original members,

included Dr. R. V. Rajam, Professor of Venereology, University of Madras, India, and Dr. S. Hellerstrom, Professor of Dermato-Syphilology, University of Stockholm, Sweden. Dr. H. Brun-Pedersen, Venereal Disease Control Officer, Danish Maritime Services, and Dr. E. H. Hermans, Medical Director, Venereal Diseases, Port of Rotterdam, were coopted for advice on maritime aspects of the problem.

The recommendations of the first session of the Expert Committee were considered in the light of developments since the time of that meeting.

# Public Health Implications of the Use of Penicillin

The public health implications of the use of penicillin in an increasing number of early infections was discussed at length. It was noted that the curtailment of the duration of the infectious stages of syphilis might reduce its transmission which might involve a progressive decline in incidence. The value of penicillin in the prevention and treatment of congenital syphilis was recognized. With penicillin therapy gonorrhœa seems to have been reduced to the status of an innocuous infection, but whether or not the incidence of this infection has been lessened cannot be stated. The simplicity of syphilis therapy may lead to treatment being undertaken without the formality of a confirmed diagnosis and to a decline in the use of serological and darkfield tests.

The advent of slow-release penicillin preparations, suitable for ambulatory treatment, appears to have overcome the disadvantages of the regime required for the original penicillin therapy and which was unsuitable for the mass treatment of syphilis. The ambulatory therapy with penicillin is suitable for mass treatment and may bring the potential control of early syphilis within reach. It was considered that foreshortened ambulatory treatment methods of early syphilis with penicillin offer possibilities for large-scale treatment previously unobtainable, and that it is now practicable to approach the control problem of early syphilis in terms of population groups as well as of the individual.

However, various barriers to the realization of this possibility were recognized, amongst which are the limited availability and the inequitable distribution of penicillin, the shortage of trained personnel, and the lack of information on the new technique.

In an appendix to the report the Committee give examples of acceptable treatment schedules with penicillin, as shown in the Table.

#### Venereal Disease Fellowships

It was proposed that fellowships be divided into two groups: (a) for senior physicians and personnel: short-term travel grants, three to six months; (b) for physicians, laboratory workers, public health nurses, or social workers: six to twelve months' training.

TABLE
(ANNEX NO. 2 OF COMMITTEE REPORT)
EXAMPLES OF ACCEPTABLE TREATMENT SCHEDULES WITH PENICILLIN

	Drug	Dosage per injection	Total injections (dosage)
Gonorrhœa	Penicillin aqueous	50,000 units at 0 hour 50,000 units at 1 hour 100,000 units at 2 hours	(200,000 units)
	Penicillin in oil and beeswax	300,000 units	(300,000 units)
	Penicillin G aqueous	50,000 units every 2 hours for 90 injections	90 (4·5 million units)
Early and Prenatal Syphilis (also other forms, except central nervous system, cardio-vascular, and congenital)	Penicillin G in oil beeswax (P.O.B. liquid)	500,000 units every 24 hours for 10 injections	10 (5 million units)
	Procaine penicillin G in 2% aluminum monstereate	600,000 units every 24 hours for 3 injections, or 600,000 units twice weekly for two weeks	3 (1·8 million units) 4 (2·4 million units)
Congenital Syphilis (early)	Penicillin G aqueous	85,000 to 100,000 units per pound body weight divided into 85 to 100 doses. Each dose every 2 hours	••

The Committee was of the opinion that criteria of selection of fellows should be established on the basis of medical and scientific achievements, general adaptability, linguistic ability etc., and that assurance should be given that candidates will return to posts of responsibility in venereal disease work in their respective countries. Fellows should visit only centres of recognized standing, and administrative aspects of venereal diseases control should be studied at large health departments of repute in countries with advanced venereal disease control programmes or at recognized schools of public health and hygiene where the teaching of venereal disease control forms a major part of the curriculum.

Laboratory workers should study only in the principal serological laboratories. The study of the clinical aspects should be limited to large hospital clinics practising control work. For maritime nations such fellowships should be granted for study in large ports where a developed venereal disease control programme is in operation. With respect to training, the Committee advise the exploration of the facilities of countries with advanced venereal disease control programmes. The Committee considers that a larger number of fellowships than the twelve originally specified should be made available.

#### **Expert Consultants and Teams**

The Committee notes that requests have been received for the help of expert consultants, and that further requests might be anticipated. Detailed information from Governments should be obtained on the special aspects of venereal disease control in which the consultants are needed. The Committee reaffirms the belief that the assistance of field demonstration and consultation teams in local and national venereal disease control programmes is one of the important ways in which countries can be stimulated to initiate control programmes, and to use the foreshortened penicillin treatment methods now available as a basis for a mass attack on syphilis in undeveloped areas. The supplies of penicillin and equipment, however, are available in undeveloped areas only to a limited extent, and it is important that the World Health Organization provide the teams with the necessary supplies and equipment.

The teams should have at least a control officer with clinical and administrative experience, a skilled serologist, and a public health nurse or social worker, together with auxiliary personnel already trained by the government concerned. Several governments have so far expressed an interest in obtaining the help of venereal disease control teams, and further requests may be anticipated.

The Committee recommended that supplies and equipment be made available to teams on a broader scale than that previously proposed. Allocations of teams to India and Egypt were recommended for 1949.

Amongst the needs expressed by government was that for new technical information on venereal disease control, including modern therapeutic and laboratory aspects. The Committee note that consultations are proceeding between W.H.O. and UNESCO with regard to co-ordination of abstracting services and advise the continuation and expansion of the distribution by W.H.O. of summary extracts from principal articles to health departments and venereologists. They advise the production of a critical review of knowledge of syphilo-therapy based on penicillin, which would serve as a practical reference for expert consultants and teams when undertaking field work in various countries.

The Committee recommend that a study group of venereologists from Europe and other regions be established to evaluate the venereal disease control methods in the United States.

#### **Syphilis**

Experience in syphilo-therapy, based on penicillin, has to a very great extent been accumulating on the American continent. In Europe, only in England, Poland, and occupied Germany, is penicillin used combined or alone in early syphilis. The limited experience with penicillin in many European countries, and the slight knowledge of its use in many other areas where much syphilis exists, has led to varying opinions as to the actual status of syphilis treatment.

General agreement appears to exist on the advantages of penicillin treatment in prenatal and early infantile syphilis and also on the advantage of rapid curtailment of the infectious stages in early acquired syphilis. Consideration through additional therapy with arsenicals and/or bismuth is considered desirable by several investigation groups, particularly in Europe. While experimental evidence in animals suggests that arsenicals and/or bismuth added may be advantageous, such benefits have not been definitely demonstrated in man. The addition of oxophenarsine hydrochloride bismuth in suitable amounts to concurrent penicillin therapy has not significantly reduced the failure rates. What is more important, a practically innocuous treatment method is changed into a more dangerous one. In some countries, for example, the United Kingdom, some practical advantages, from the point of view of case-holding to a combined treatment attack, have been found.

The Committee is aware that any scientifically

sound method will fall or stand on its merits, and observes that experience in penicillin treatment of syphilis is now passing into its sixth year. The greater proportion of clinical or serological relapses in early syphilis occurs between the fourth and ninth months after treatment.

The Committee observes that where adequate penicillin treatment has been given the re-treatment rate in early syphilis does not exceed 5 per cent. in the best controlled series in the U.S.A., though higher failure rates have been reported in other treatment series.

The Committee notes with considerable interest the follow-up of the original patients treated with penicillin after Mahoney and his collaborators' discovery in 1943 of the spirocheticidal value of penicillin. The absence of observed neurosyphilitic manifestations in these patients, and the extremely low incidence of neuro-relapse or abnormal spinal fluids reported in other adequately treated series of patients, does not indicate that such manifestations may not develop with time. There is, however, reason to believe that the incidence of neuro-relapses will be low as compared to previous systems of metal chemotherapy, and may average 1 or 2 per cent.

Therapy.—The Committee does not feel it necessary to comment on the established treatment of syphilis by arsenicals and bismuth, or of gonorrhœa by sulphonamides, since these have been extensively evaluated in the past. With regard to the therapeutic aspects of the "minor" venereal diseases (chancroid, lymphogranuloma venereum, granuloma inguinale) these should be reviewed in detail by the W.H.O. Expert Committee on Venereal Infections at a later date. At present it would appear advisable to consider only certain aspects relating to gonorrhœa and particularly to therapy in syphilis, in view of the priority given by the Health Assembly to the public health aspects of venereal disease control, and the significance of the developments in therapy during the last few years.

#### Gonorrhæa

Any adequate treatment-schedule of gonorrhea with penicillin will cure 95 per cent. or more of acute cases of gonorrhea, by the use of amorphous or crystalline penicillin. Examples of acceptable treatment-schedules in gonorrhea are given in the Table.

On the basis of inadequate diagnostic and followup criteria non-specific urethritis is often diagnosed as gonorrhea. In this connexion the Committee notes the information collected and distributed by W.H.O. on genital-infections of unclassified or illdefined nature. Non-specific urethritis is reported to be of increasing importance in Canada, Chile, the United Kingdom, and certain other countries. The treatment-resistance in general of these conditions, and their unclassified ætiology, might be considered by the W.H.O. Expert Committee on Venereal Infections as worthy of a special research project, sponsored by W.H.O., should the incidence of such conditions increase so as to become a problem of public health importance. Meanwhile the Committee considers that W.H.O. should collect and distribute further material on these conditions.

Therapy.—The resistance to treatment of non-specific urethritis and the unclassified ætiology was discussed. It was thought that these conditions would be worthy of a special research project sponsored by W.H.O. should the incidence increase so as to become a problem of public health importance. Meanwhile further information should be collected and distributed.

# Summary of Recommendations of Expert Committee (Second Session, October 15 to 19, 1948)

#### **New Considerations**

The advent of penicillin in the therapy of early syphilis may have far-reaching public-health implications. The developments in this branch of the control work offers possibilities for large-scale treatment, permitting an approach in terms of population groups as well as of the individual. One of the first objectives of W.H.O. in its action programme should be to initiate control work in regions with limited venereal-disease services where syphilis is highly prevalent and causes untold individual and social misery and inestimable economic losses.

In light of the developments since the meeting of the Interim Commission Expert Committee, supplementary as well as new recommendations have been made by the *ad hoc* Committee.

#### FIELDS OF ACTIVITY

The international venereal disease programme of W.H.O. indicates that W.H.O. should: promote production and distribution of anti-venereal drugs; generally assist governments in initiating venereal disease programmes or developing control structures already in existence; promote training of skilled personnel, the dissemination of technical information, and the adoption of uniform diagnostic, therapeutic, and other procedures; co-operate with other international organizations interested in venereal-disease control, etc.

In view of the adoption of these principles by W.H.O. and of the recent developments in the

venereal disease control field, the *ad hoc* Expert Committee on Venereal Diseases recommends that:

further information on penicillin production and distribution be collected, and that active measures be taken by W.H.O. and other international organizations to ensure a wider availability of the antibiotic;

the rehabilitation of the UNRRA penicillin plants be further considered as soon as the contemplated survey of these plants has been carried out, and that this matter be studied also by the United Nations Economic Commission for Europe;

W.H.O. be prepared to advise on the quality and standard of penicillin products.

### The Expert Committee further recommends that:

the criteria outlined be used as a basis for selection of candidates for venereal-disease fellowships and that study-periods be spent at training places of the highest standard, recommended by W.H.O.;

particular attention be paid to the granting of fellowships to implement venereal-disease programmes carried out with the assistance of W.H.O., or under the programmes to combat prenatal and infantile syphilis recommended by the Joint Committee on Health Policy of W.H.O. and UNICEF;

the needs of governments for training of personnel in venereal diseases be met by W.H.O. in 1949 as far as possible, subject to the suggested criteria, and that provisions be made to meet increased requests for training in 1950.

#### It is also recommended that:

one W.H.O. consultation and demonstration team be allocated to India, and one to Egypt in 1949;

supplies and equipment to teams be made available on a broader scale than that proposed under the 1949 programme;

provisions for qualified personnel be made to meet an increased demand by governments for demonstration and consultation services for 1949 and 1950, including individual experts necessary to implement the recommendations of the Joint Committee on Health Policy of W.H.O. and UNICEF, to conduct surveys, initiate demonstrations, and follow up programmes to combat prenatal and infantile syphilis in several countries.

#### It is recommended that:

W.H.O. study the ways and means to increase dissemination of technical information on venereal-disease control methods to meet the requests of governments;

that a temporary study-group, consisting of a limited number of outstanding venereologists from Europe and other regions, be established in 1949 to evaluate the venereal-disease control methods in use in U.S. as to their effectiveness in national and international programmes.

#### It is further recommended that:

the sub-comm ttee on serology and laboratory aspects proposed in the adopted programme of the Interim Commission's Expert Committee be established, and that a tentative plan for the conduct of the next International Serological Laboratory Conference be drawn up as soon as possible for consideration by the W.H.O. Expert Committee on Venereal Infections.

#### International Health Regulations for Venereal Diseases and the Brussels Agreement of 1924

Considering the adoption by the Health Assembly of the principles on the basis of which the Brussels Agreement should be revised and expanded, and in view of the particular importance to many nations of the maritime aspects of the epidemiology of venereal diseases, it is recommended that:

a provisional text for International Regulations for Venereal Diseases be prepared for circulation to members of W.H.O. and that subsequently a final draft be submitted to the Health Assembly for its consideration;

a special investigation project be established in a major port in Northern or Southern Europe or in the Far East as a collateral to the implementation of a revised Brussels Agreement;

the relevant authorities in Belgium, France, Germany, Holland, and Switzerland be approached by W.H.O. with a view to the establishment of a Commission, composed of representatives of those countries, to study and recommend measures for active coordination of venereal disease control in the Rhine river area.

#### BEJEL

Bejel and related spirochetoses is a problem of considerable importance to the health of the people in tropical and sub-tropical areas and its manifestations in different environments have been studied only to a limited extent. It is recommended that:

W.H.O. study the problem of Bejel, the nature and extent of this and related spirochetoses, and that it be made a separate activity of W.H.O. in view of the predominantly non-venereal nature of these conditions.

#### POLISH ANTI-SYPHILIS PLAN

The Expert Committee expresses its commendation on the progress made since the Polish antisyphilis plan was put into operation at the beginning of the year. The treatment of 43,000 cases of syphilis and 27,000 cases of gonorrhœa up to August represents a public health achievement. The programme could not have been carried out except through a systematic large-scale approach through case-finding and foreshortened treatment methods.

#### EXPERT COMMITTEE ON VENEREAL DISEASES

Considering the technical aspects and the scope of the problems of venereal disease control in relation to the international programme of W.H.O., a representative advisory expert body of specialists in the various departments of control work, is required, and it is recommended that:

the W.H.O. Expert Committee on Venereal Infections be composed of ten members and that a subcommittee on serology and laboratory aspects be established as soon as possible, the latter to be composed of no more than four members.